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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLARIZING PLATE, AND LIQUID CRYSTAL DISPLAY

(57) Abstract: A polarizing plate is provided which includes a polymer film, a polarizer, a polymer substrate, and an optically anisotropic layer containing a liquid crystal compound, laminated in this order, wherein the polarizer has a thickness of 10 to 25  $\mu\text{m}$ . A liquid crystal display using the polarizing plate shows high display quality without causing light leakage.



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# INTERNATIONAL SEARCH REPORT

National Application No.  
PCT/JP 03/03358

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G02B5/30 G02F1/1335 G02F1/13363

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G02B G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 568 290 A (NAKAMURA TAKU) 22 October 1996 (1996-10-22) column 4, line 1-29; figures 3,4 column 7, line 21 -column 8, line 16 column 17, line 45 - line 55	1-9
X	EP 0 911 656 A (FUJI PHOTO FILM CO LTD) 28 April 1999 (1999-04-28) cited in the application paragraphs '0002!', '0003!', '0008!', '0014!', '0120!; figure 1	9

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

17 December 2003

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/JP 03/03358

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5568290	A	22-10-1996	JP	3284002 B2	20-05-2002
			JP	7191217 A	28-07-1995
			US	5793455 A	11-08-1998
EP 0911656	A	28-04-1999	EP	0911656 A2	28-04-1999
			JP	2000154261 A	06-06-2000

# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP 03/03358

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-8

Polarizing plate comprising a polymer film, a polarizer, a polymer substrate and an optically anisotropic layer comprising a liquid crystal compound laminated in this order, wherein the polarizer has a thickness of 10 to 25  $\mu\text{m}$

2. Claim : 9

A polarizing plate comprising a protective film, a polarizer, a poly film substrate, whereby the polymer film has a predefined  $R_e$  retardation and a predefined  $R_{th}$  retardation value